



State of Utah

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DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

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Director

1266103 - R8.SDMS

ERRC-007-12

January 17, 2012

Richard Burbidge
Burbidge, Mitchell & Gross
215 South State Street, Suite 920
Salt Lake City, Utah 84111

RE: Park City Business Center VCP Site #C071, Park City, Utah

Dear Mr. Burbidge:

The Division of Environmental Response and Remediation (DERR) has completed review of the *Site Investigation Summary Report*, dated October 24, 2011, for the referenced site. The document has also been reviewed by the U.S. Environmental Protection Agency (EPA).

The review comments are enclosed with this letter. The DERR and the EPA agreed on the nature of the comments, so they are not broken out by Agency, but are presented as a single set of comments that should be addressed prior to acceptance of the report under the Voluntary Cleanup Program. Please address the enclosed comments and submit a revised report for the site.

If you have any questions, please contact me at (801) 536-4092.

Sincerely,

Elizabeth Palmer, P.G.
VCP/Brownfields Section
Division of Environmental Response & Remediation

EAP/eds

Enclosure(s)

cc: Richard Bullough, Ph.D., Director, Summit County Public Health Department
Kathy Hernandez, U.S. EPA, Region VIII

REVIEW COMMENTS

SITE INVESTIGATION SUMMARY REPORT dated October 24, 2011

PARK CITY BUSINESS CENTER VOLUNTARY CLEANUP SITE #071

January 17, 2012

General Comments:

1. The data and information submitted to date suggests the contamination is limited to the floodplain and perhaps localized areas just outside of the floodplain. This should be the focus of future work. However, it is premature to propose a remedy at this time as the vertical extent of contamination in the floodplain is not completely defined. As one example, the lead concentration reported from GP-7 (24-36 inches below ground surface) was 18,000 mg/kg. However, there are no samples below this depth that document how deep the contamination extends. As another example, sample C-15, which appears to be just a little distance west of the floodplain, also revealed elevated levels of lead in the soil. However, it is unknown how far the contamination extends in this area, both vertically and horizontally as well. Please propose additional sampling to address this comment. This request is consistent with the *Sampling and Analysis Plan and Quality Assurance Project Plan* (dated March 10, 2011) which noted that additional delineation may be necessary upon completion of the first phase of sampling.
2. The second sentence in Section 1.1 seems to suggest that at least one Phase 1 Environmental Site Assessment (ESA) exists for the Park City Business Center (PCBC) property. If this is the case, please provide copies of all Phase 1 ESAs for the PCBC property. This information is necessary to help with the on-going characterization activities.
3. If photos were taken of the sediment profiles/cores and of the floodplain, please include the photos as an appendix to the report.
4. Even with the large Relative Percent Difference (RPD) from some soil sample results, the data is accepted under the Voluntary Cleanup Program (VCP). The DERR understands there may have been issues with the homogenization of the soil samples that could have contributed to the RPD difference. However, this does not change the fact that the site is impacted nor does it change the conclusions from the investigation. In the future, please ensure that the analytical methods used by the laboratory are consistent with the Sampling and Analysis Plan for the site.

Specific Comments:

1. Page 1, Section 1.1 Background: The historical land use is an important part of the on-going site characterization efforts. Please revise the text to indicate if there are any historical records documenting how the land was used during the mining period of the late 1800s to early 1900s. In addition, please revise the text to indicate if this land was owned or leased by any mining companies and whether there were any mining claims on this property. A site map documenting historical operations as compared to the current sampling locations would be useful in evaluating the adequacy of the current characterization efforts. Please note that the language in Section 1.1 of the *Sampling and Analysis Plan*, dated March 10, 2011, contains pertinent historical information that is applicable to this Section. Please revise the text to include this information as well.

2. Page 2, Section 1.1, Second Paragraph, Sentence Starting With "The DERR...". Please rephrase this sentence as the DERR did not establish the action levels. The action levels for the VCP in the Lower Silver Creek area were adopted from the Richardson Flat Tailings site Operable Unit #1. In addition, please make this correction on Page 4, 3rd Paragraph, directly above the Table.
3. Page 5, Section 3.0 Sampling Activities and Results, Third Sentence: To clarify this section, please revise the text to indicate "Surface water samples were collected from two areas of Lower Silver Creek where a portion of the braided stream came onto the eastern edge of the property, left it, and then came onto the property again, cutting through the Northeast corner of the property line. Surface water samples were collected in slow flowing, pooled areas of the stream."
4. Page 5, Section 3.1 Characterization Soil Sampling, Fourth Paragraph, Third Sentence: This sentence seems to suggest that areas of the site are being graded and raises questions about the sampling locations. To address this comment, please revise the text to indicate if samples were collected from areas that have been disturbed or whether samples were collected from native, undisturbed locations across the property.
5. Page 6, Section 3.1 Characterization Soil Sampling, Ninth Paragraph: Please revise the text to specify if there was an error with the GPS unit that caused the sample locations to be rechecked and revised. This is important as it relates to the accuracy of the sample locations. In addition, since it was reported that the areas were mapped again at a later date, please specify in the text how the original sample locations were relocated with the GPS. Was it professional judgment or were sampling pin flags or something along these lines still in place/visible so that the original sample locations could be easily located and verified? This comment is also applicable to Section 4.7.
6. Page 8, Section 3.1.2 Sample Acceptance: Samples within the floodplain have an action level of 310 mg/kg lead rather than an action level of 500 mg/kg lead noted in this section. Please revise the text to address this comment.
7. Page 11, Section 3.2 Geoprobe Soil Sampling: Please revise the text to include a rationale why no soil samples were collected below 36 inches. As an example, please indicate if the black organic layer was encountered at this depth or if there were changes in the substrate that caused cessation of the sampling (such as whether tailings material or native material was observed). The borehole logs included in the appendices do not indicate much change in substrate color. Visual observations are an important part of the sampling protocol and should be clearly noted to help establish markers in the field that can be used to define the extent of contamination in the future. This comment is also applicable to General Comment #1 and General Comment #3.
8. Page 14, Section 3.3 Surface Water and Sediment Sampling, First Paragraph, Fourth Sentence: Please clarify the text to indicate if the standing water was in a pool of the stream bed. In addition, please locate the surface water samples on Figure 1 so these points are represented on a site map.
9. Page 15, Section 3.3 Surface Water and Sediment Sampling, Third Paragraph, First Sentence: Please revise the text to provide a better description of the sampling locations. As an example, please indicate if the sample was a true stream sediment substrate sample or if it was collected from a bank on the stream's edge.
10. Page 21, Section 3.4.1: Please double check the table in this section to ensure the unfiltered and filtered results for GP-7 and GP-8 are accurate. Please verify there was not a labeling mix up in the

field or lab. Normally, the results of the dissolved metals are less than the results of the total metals. That is not the case in this table. As an example, the dissolved concentration reported for zinc in GP-8 was 32.3 mg/L and the total concentration reported for zinc in GP-8 was 1.12 mg/L.

11. Page 22, Section 3.4.3 Quality Control Sampling, First Sentence: In the context of this section, please change surface water to groundwater.

12. Page 32, Section 5.0 Conclusions: Per Section VIII.B of the Voluntary Cleanup Agreement, please include "recommendations" regarding the next steps of the project.

13. Page 88: Please remove this page since it does not appear to be a part of this report.

End of review comments.